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09/820,747	03/30/2001	Michael J. Sinclair	03797.00037	4737

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EXAMINER

PRETLOW, DEMETRIUS R

ART UNIT PAPER NUMBER

2863

DATE MAILED: 03/13/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/820,747

Applicant(s)

SINCLAIR ET AL.

Examiner

Demetrius R. Pretlow

Art Unit

2863

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 30 March 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-28 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-10 and 24-26 is/are allowed.
- 6) ☒ Claim(s) 11, 27 and 28 is/are rejected.
- 7) ☒ Claim(s) 12-23 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 March 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 3.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

## **DETAILED ACTION**

### ***Specification***

1. The disclosure is objected to because of the following informalities:

On page 5, line 14, it appears that Fig. 1 should be Figure 1A or Figure 1B.

Appropriate correction is required.

### ***Claim Rejections - 35 USC § 112***

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 15-23 are rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential structural cooperative relationships of elements, such omission amounting to a gap between the necessary structural connections. See MPEP § 2172.01. The omitted structural cooperative relationships are connection between the elements of the claim and the pointing member in the preamble. The Examiner can not determine the area of search for claim elements because the elements may be found in a many arts therefore no art has been applied.

### ***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

4. The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).
5. Claim 11 rejected under 35 U.S.C. 102(e) as being anticipated by Philipp (US 6,288,707). Philipp teach determining a first capacitance of a first capacitive node, the first capacitance depending upon the position of the pointing member. Note Philipp column 8, lines 40-56. Philipp teach determining a second capacitance of a second capacitive node, the second capacitance depending upon the position of the pointing member. Note Philipp column 8, lines 40-56. Philipp teach generating a first signal having a first frequency depending upon the capacitance. Note Philipp column 9, lines 21-26 and note also column 10, lines 36-46. Philipp teach generating a second signal having a second frequency depending upon the second capacitance. Note Philipp column 9, lines 21-26 and note also column 10, lines 36-46. Philipp teach determining a ratio corresponding to a ratio of the first and second frequencies, the position of the pointing member being indicated by the determined ratio. Note Philipp column 10, lines 37—39.

***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claim 28 is rejected under 35 U.S.C. 103(a) as being unpatentable over Philipp (US 6,288,707) in view of Gillespie et al (US 6,414,671). Philipp teach determining a first capacitance of a first capacitive node, the first capacitance depending upon the position of the pointing member. Note Philipp column 8, lines 40-56. Philipp teach determining a second capacitance of a second capacitive node, the second capacitance depending upon the position of the pointing member. Note Philipp column 8, lines 40-56. Philipp teach generating a first signal having a first frequency depending upon the capacitance. Note Philipp column 9, lines 21-26 and note also column 10, lines 36-46. Philipp teach generating a second signal having a second frequency depending upon the second capacitance. Note Philipp column 9, lines 21-26 and note also column 10, lines 36-46.

Philipp does not teach determining a sum corresponding to a sum of the first and second frequencies, the pressure of the pointing member being indicated by the determined sum.

Gillespie et al. teach determining a sum corresponding to a sum of the first and second frequencies, the pressure of the pointing member being indicated by the determined sum. Note Gillespie et al. column 23, lines 27-43.

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify the invention of Philipp to include the teaching of Gillespie et al. because it would allow the access of special menus and for inputting "mouse click and drag" modes and for simple input gestures. Note Gillespie et al. column 10, lines 4-12.

3. Claim 27 is rejected under 35 U.S.C. 103(a) as being unpatentable over Mabusth in view of Philipp (US 6,288,707). Mabusth teach a first capacitive node, a capacitance of the first node depending upon the position of the finger and second capacitive node, a capacitance of the first node depending upon the position of the finger. Note Mabusth column 2, lines 46-65. Mabusth teach a switch coupled between the first capacitive node, the second capacitive node, and the oscillator, the switch being configured to connect either the first capacitive node or the second capacitive node with the oscillator being configured to generate a signal having a characteristic depending upon the capacitance of either the first capacitive node or the second capacitive node depending upon the switch. Note Mabusth column 6, lines 4-30 and note also lines 42-66.

Mabusth does not teach frequency ratio determinator determining a ratio of the characteristics of the first and second signals.

Philipp teach a frequency ratio determinator determining a ratio of the characteristics of the first and second signals. Note Philipp column 10, lines 37—39.

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify the invention of Mabusth to include the teaching of Philipp because it would prevent fingertip location on the Y-axis from affecting the X measurement while moving a pointer or cursor. Note Mabusth column 10, lines 45-47.

***Allowable Subject Matter***

4. Claims 1-10 and 24-26 are allowed.
5. The primary reason for the allowance of claims 1-10 is the inclusion of the limitations of a second oscillator including a second capacitive node having a second capacitance depending upon the position of the pointing member relative to the second capacitive node, the second oscillator generating a second signal having a second frequency depending upon the second capacitance and a frequency ratio determinator determining first and second characteristics associated with the first and second frequencies, respectively, and determining a ratio of the first and second frequencies. It is these limitations found in each of the claims, as they are claimed in the combination, that has not been found, taught or suggested by the prior art of record which makes these claims allowable over the prior art.
6. The primary reason for the allowance of claims 24-26 is the inclusion of the limitation of a second oscillator including a second capacitive node having a second capacitance depending upon the position of the pointing member relative

to the second capacitive node, the second oscillator generating a second signal having a second frequency depending upon the second capacitance and a processor configured to determine a ratio of the first and second characteristics. It is this limitation found in each of the claims, as they are claimed in the combination, that has not been found, taught or suggested by the prior art of record which makes these claims allowable over the prior art.

7. Claims 12-14 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.
8. Claims 15-23 would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action.
9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Demetrius R. Pretlow whose telephone number is (703) 308-6722. The examiner can normally be reached on Monday - Friday from 8:00 am to 4:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Barlow, can be reached at (703) 308-3126. The fax phone number for the organization where this application or proceeding is assigned is (703) 308-7722.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-1782.



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Art Unit: 2863

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Demetrius R. Pretlow  
Patent Examiner

*Demetrius Pretlow*

3/3/03

*M*  
MICHAEL NGHIEM  
PRIMARY EXAMINER